

APPENDIX I

GLOSSARY

A

ACTIVE USW—A method for determining the location and distance of a submarine by measuring the time interval between the transmission of a sound signal and its reflection back to the projector.

AEROSOLS—Small droplets (solid or liquid) suspended in a gas.

AFMEDS—Air Force Meteorological Data System.

AFWA—Air Force Weather Agency headquartered at Offutt AFB, NB.

AIG—Address indicator group.

ALGORITHM—A step-by-step procedure for solving a mathematical problem.

ANALOG—Proportional and continuous. An analog recorder draws continuous lines proportional to the electronic signal input.

AOR—Area of responsibility.

APT—Automatic picture transmission. The automatic transmission of images by polar-orbiting satellites.

ARQ—Automatic response to query. A method of obtaining data using AFMEDS.

ASOS—Automated surface observing system.

AUTODIN—Automatic digital network:

AWN—Automated weather network; the complex worldwide collection and distribution network of meteorological data operated by the Air Force.

AZIMUTH—The horizontal angular measurement from a fixed reference to a point. The navy uses angular measurements in clockwise degrees from 0 to 360. When 0 is referenced to true north, the result is a true azimuth bearing. When referenced to an arbitrary direction, such as the bow of a ship, the result is a relative azimuth bearing.

B

BATHYTHERMOGRAPH—Any device used to measure and record temperatures through a column of water.

BAUD—A measurement unit of electronic data transmission speed.

BT—Abbreviation for break transmission, used to indicate the beginning and end of a message body.

BULLETIN BOARD—A communications system that uses standard telephone lines to dial-in and access computer networks.

BYTE—A group of adjacent binary digits (bits).

C

CAD—Collective address designator.

CCTV—Closed-circuit television.

CHAFF—Material (such as strips of foil) ejected into the air in order to confuse enemy radar devices.

COMSEC—Communications security.

CONFIDENTIAL—Classified information that if disclosed could be expected to cause damage to national security.

COTS—Commercial-off-the-shelf.

CPU—Central processing unit of a computer.

CW—Continuous wave radio transmission.

D

DATA BASE—A collection of data organized for rapid search and retrieval by a computer.

DIFAX—Digital facsimile.

DMSP—Defense meteorological satellite program.

DPVS—Distributed plain language verification system.

DSN—Defense switched network, an upgrade and name change to the automatic voice network (AUTOVON).

DUCT—A layer in the atmosphere that readily traps electromagnetic energy permitting extended transmission ranges.

DUCTING—The process occurring within a duct, also known as trapping.

E

E-MAIL—Electronic mail.

ELECTROMAGNETIC SPECTRUM—The total range of the various radiation frequencies and corresponding wavelengths.

ELECTRO-OPTICS—General term used to describe weapons that make use of electromagnetic energy in order to function. These systems normally operate in the visible and infrared portions of the electromagnetic spectrum.

ESM—Electronic support measures. Radar surveillance conducted in passive mode designed to intercept hostile radar emissions.

F

FAA—Federal Aviation Administration.

FALLOUT—Radioactive particles resulting from a nuclear explosion and descending through the atmosphere.

FAX—Short form of facsimile, referring to weather facsimile or a telefacsimile transmission.

FLIB—Forward-looking infrared radar.

FMCR—Fleet multi-channel broadcast.

G

GCCS-M—Global command and communications system-maritime.

GF MPL—Geophysics fleet mission program library.

Ghz—Gigahertz. One billion hertz or cycles per second.

GIGABYTE—A unit of information equal to one billion bytes.

GOTS—Government-off-the-shelf.

GWCS—Global weather communications system.

H

HECTOPASCAL (hPa)—A unit of 100 pascals used to measure pressure, exactly equivalent to 1 millibar.

HERTZ—A frequency defined as one cycle per second.

HF—High-frequency. Radio waves between 3 MHz to 30 MHz.

HOMEPAGE—The first page or index of a particular website.

HTML—Hypertext Markup Language.

I

INFRARED (IR)—The portion of the electromagnetic spectrum with wave lengths just slightly longer than visible light energy (thermal energy).

INTERNET—A connection of several wide area networks. The Internet is also a term that is synonymous with the World Wide Web.

K

KILOBYTE—A unit of information equal to one thousand bytes. Also abbreviated as "KB".

KHz—Kilohertz. One thousand hertz or cycles per second.

L

LAN—Local area network.

LASER—Light amplification by stimulated emission of radiation, approximately equal to 1.06 microns.

LCD—Liquid crystal diode. A gray or black display of numbers or shapes commonly used in electronics.

LPM—Lines per minute. A setting used for HF radio weather facsimile transmissions.

LUF—Lowest usable frequency.

M

MANOP—Formatted weather message header that identifies the product type, originator, and area covered by the product.

MEGABYTE—A unit of information equal to one million bytes.

MET—U.S. Navy mobile environmental team.

METEOROLOGY—The study of phenomenon of the atmosphere.

MHz—Megahertz. One million hertz or cycles per second.

METMF—U.S. Marine Corps meteorological mobile facility. Weather personnel who operate USMC Metvans.

MSI—Modified surf index. A single dimensionless number that is used to provide a relative measure of conditions likely to be encountered in a surf zone during amphibious operations.

MTF—Editor-Message text format. The AUTODIN message formatting software endorsed by the Navy.

MUF—Maximum usable frequency.

N

NATO—North Atlantic Treaty Organization.

NAVAID—An acronym for navigation aid, usually referring to an aircraft navigation aid.,

NAVMETOCOM—Short title for Naval Meteorology and Oceanography Command headquartered at the Stennis Space Center, Mississippi.

NAVOCEANO—Short title for the Naval Oceanographic Office, Stennis Space Center, MS. Also NAVO.

NEXRAD—Next generation radar. The weather surveillance radar-1988-Doppler (WSR-88D).

NIMA—National Imagery and Mapping Agency, headquartered in Washington, D.C.

NIPRNET—Nonsecure Internet protocol routing network used by the military.

NITES—Navy integrated tactical environmental system.

NOAA—National Oceanic and Atmospheric Administration, a division of the U.S. Department of Commerce.

NOTAM—Notice to airmen.

O

OA—Abbreviation for shipboard aviation operations division, the shipboard division for which most Aerographer's Mates work.

OAML—Oceanographic and atmospheric master library.

OMNI-DIRECTIONAL—An antenna capable of sending or receiving radio waves in all directions.

OTCIXS—Officer in tactical command information exchange system.

P

PASSIVE USW—A method for detecting submarines that evaluates a signal received by a hydrophone.

PLA—Plain language address used with AUTODIN messages.

PMSV—Pilot-to-meteorological service.

PSN—Processing sequence number used with AUTODIN messages.

R

RADFO—An acronym for radiological fallout.

RATT—Radio teletype.

REFRACTIVITY—The study of how electromagnetic energy is bent (refracted) as it moves through different density layers within the atmosphere.

S

SAR—Search and rescue.

SECRET—Classified information that if disclosed could cause serious damage to national security.

SERVER—A fast computer connected to the Internet full time. It directs Internet traffic to its proper destination.

SHF—Super-high frequency radio waves. Generally between 3 GHz and 30 GHz.

SIPRNET—Secure Internet protocol routing network used by the military.

SMOOS—Shipboard meteorological and oceanographic observation system.

SPECIAL-HANDLING MARKING—Designation applied to messages requiring special handling procedures. Special handling markings ensure messages so marked will be handled and viewed by authorized personnel only.

SSIC—Standard subject identification code.

STU-III—Secure telephone unit-third generation.

SYNOPTIC—In general, pertaining to or affording an overall view. In meteorology, this term has become specialized in referring to the use of meteorological data obtained simultaneously over a wide area for presenting a comprehensive picture of the state of the atmosphere.

T

TADIXS—Tactical data information exchange system.

TAF—Terminal Aerodrome Forecast.

TOP SECRET—Classified information that if disclosed could cause exceptionally grave damage to national security.

U

UHF—Ultra-high frequency radio transmission, generally between 300 MHz and 3 GHz.

URL—Uniform resource locator.

USMTF—United States message text format.

USW—Undersea warfare.

V

VALID—Effective, good.

VHF—Very-high frequency radio transmission, generally between 30 MHz and 300 MHz.

W

WAN—Wide area network.

WEBSITE—A collection of one or more web pages created by a person, company, or organization on the Web.

WEFAX—An acronym for weather facsimile, specifically the NWS service providing satellite imagery and graphic products via a geostationary satellite data broadcast.

WMO—World meteorological organization.

WORLD WIDE WEB—The large hypertext network of the Internet. Generally refers to the collection of websites on the Internet and the information that can be accessed from them.

WPM—Words per minute.

X

XBT—Expendable bathythermograph, usually referring to the probe that is dropped in the water and not recovered.

APPENDIX II

MANOP CODES

Environmental data messages use coded MANOP headings to facilitate the rapid automatic switching of the information at the AWN Automated Weather Data Switch (AWDS), as well as to provide recognition of the data contents. Refer to Chapter 1 of this module for a discussion on the format of MANOP headers.

TT- DATA CONTENT IDENTIFIERS

AB	Weather summaries; current conditions, previous day conditions, tropical weather summaries and outlooks, agricultural summaries, and agricultural advisories.	FB	Forecast, flight level winds/temps, navy altimeter setting, aviation area, public, prognostic discussions.
AC	Convective analysis.	FC	Terminal forecast valid 12 hours or less.
AN	Analysis of satellite imagery and radar observations.	FD	Forecasts; flight level wind/temp.
AR	Radar analysis.	FE	Forecasts, general surface, extended and outlooks; ice synopsis and outlook, upper air forecast and outlook.
AS	Analysis, surface level, pressure, fronts.	FJ	Forecasts, parcel trajectory.
AU	Analysis, constant pressure levels, heights, centers.	FK	Forecast, air pollution potential.
AW	Analysis, wind.	FM	Forecast, temperature extremes, special temperatures, convective gust potential.
AX	Analysis, miscellaneous: ice edge, satellite weather summaries, skew-t, terminal forecast receipt summaries, tropical cyclone, graphic analysis plots, analysis discussions, upper air, thickness analysis, flight hazards, snow depth, tropical weather summaries, observation receipt summary, alerts of significant tropical feature in satellite imagery, surface analysis, surface forecasts, upper-air observation receipt summary.	FN	Forecasts; general area weather (regional).
CA	Noncurrent scheduled TAF.	FO	Forecasts, Military: air routes, mission control, mission planning, operation area, air-refueling areas; paratroop zone, helo landing zone, SAR, High Interest Area upper winds/temps; Also, automated forecast guidance for military locations of MOS, NGM, LFM, and trajectory models (numerous parameters).
CB	Soil moisture.	FP	Public forecasts; general weather, coastal marine, lakes, mid-ocean; Special public forecasts; ozone, UV, lightning.
CM	Noncurrent scheduled METAR.	FQ	Height prog for standard isobaric levels.
CO	Monthly means (Oceanic).	FR	Forecasts, Air-routes.
CS	Monthly means (Surface).	FS	Forecasts, Surface coded: Pressure, temperatures, winds;
CT	Soil temperature reports.		Forecasts, 1000-hPa level.
CU	Monthly means (Upper-air).		
DF	Forecast, radiological fallout winds.		
FA	Forecast, aviation area weather (some with flight level winds/temps), aviation SAR weather.	FT	Forecast, Terminal Aerodrome (TAF) bulletins with valid periods of 12 hours or greater.

FU	Forecasts, Upper Air: Heights (IAC code), winds, temperatures, D-values, turbulence, vertical motion.	OS	Ocean surface, spectral sea data.
FX	Forecasts, Miscellaneous: any and every type of forecast-Specialized military operation forecasts, FNMOC Navy forecast support packages, forest fire forecasts, NBC nuclear EDFs and chemical CDFs, and forecaster discussions; Forecaster guidance bulletins, miscellaneous.	PD	Prognostic discussions (forecaster reasoning or model comparisons).
FY	Forecasts, Upper level temperatures, winds.	PL	Automated wind data.
FZ	Forecasts, Marine, SAR, small craft advisories; Forecaster guidance bulletins for marine shipping areas.	PW	WARNINGS, point weather (military).
GH	Gridded 500-hPa level forecasts.	RW	River report.
GP	Gridded surface analysis.	SA	Aviation hourly observations.
GT	Gridded upper-level temperature forecasts.	SE	Seismograph earthquake observations.
GW	Gridded upper-level wind forecasts.	SF	Atmospheric observations.
HE	Solar significant-event alerts.	SH	Ship synoptic report.
HF	Solar flux high frequency radio propagation conditions/forecasts.	SI	Synoptic surface observation, intermediate hours (3-hourly synoptic).
HI	Ionosphere observations.	SM	Synoptic surface observation, main hours (6-hourly synoptic)
HM	Geomagnetic (magnetometer) observations.	SN	Hourly synoptic report.
HO	Solar optical observations.	SO	BATHY observations.
HR	Solar radio-emission observations.	SP	Special (aviation hourly) observations.
HS	Solar observations from satellites.	SR	River stage and special service observations.
HX	Solar products, miscellaneous.	SS	Drifting buoy report.
IU	Geophysical alert, stratospheric alert.	ST	Ice report.
MM	Civil emergency warning.	SW	Supplementary aviation weather reports.
MS	Marine, combined wind wave/sea swell.	SX	Miscellaneous data.
MT	Marine, sea-surface temperature analysis.	TB	Satellite orbital prediction data
MV	Marine, sound channel data.	TC	Satellite tropical disturbance bulletin.
NO	Notices, weather circuit delays or changes, or product changes; Notices about temporary special support products; Notices, schedules, frequency changes.	TP	METSAT tropical storm position data.
OB	Oceanographic, beach surf-height forecasts (SURFCSTs).	TR	Satellite clear radiance data.
		TS	WMO satellite wind data.
		TU	Satellite vertical temperature soundings.
		TW	Satellite cloud motion derived wind data.
		TX	Data buoy position data.
		UA	Aircraft observations: PIREP, AIREP, AMDAR.
		UD	Maximum wind.
		UE	RAOB (part D).
		UF	RAOB (part C/D).
		UG	PIBAL (part B).
		UH	PIBAL (part C).

UI	PIBAL (part A/B).		WARNINGS, gale, storm, High Wind, small craft, harbor.
UJ	RAOB/PIBAL (all parts).		Bulletin, tropical disturbance status (U.S.)
UK	RAOB (part B).		Hazardous weather reports;.
UL	RAOB (part C).		Severe PIREPs, AIREPs;
UM	RAOB (part A/B).		Severe radar reports;
UN	Rocketsonde observations.		Special weather statements;
UP	PIBAL (part A).		Urgent specials.
UQ	PIBAL (part D).		
US	RAOB (part A).	WP	WARNINGS, and advisories for the public (Canada).
UT	Aircraft report.	WR	WARNINGS, flash flood.
UV	Wind vector difference.	WS	Flight advisories, SIGMETs.
UX	Upper Air, miscellaneous.	WT	WARNINGS, tropical cyclone.
UY	PIBAL (part C/D).	WU	WARNINGS, severe thunderstorm.
UZ	Dropsonde data.	WW	WARNINGS, Weather, general;
WA	Flight advisories, AIRMET/SIGMET.		Advisories, tropical disturbance (Australia);
WD	Tropical cyclone forecaster discussions;		WARNINGS, tropical cyclone (Indian Ocean, Bay of Bengal, Arabian Sea);
	Tropical cyclone advisories;		WARNINGS, gale, storm;
	Significant weather summaries.		WARNINGS, Tsunami (Japan);
WE	WARNINGS, Tsunami.		WARNINGS, point weather (Navy-Mediterranean);
WF	WARNINGS, Tornado and special marine.		WARNINGS, High Wind/High Sea;
WH	WARNINGS, Tropical Cyclone, including formation alerts;		WARNINGS, marine Sub-tropical cyclone;
	WARNINGS, High Winds.		Summary, destructive/severe weather reports;
	Forecast, Strike Probability.		WATCH, severe weather;
WM	WARNINGS, High Seas;		WARNINGS, severe weather;
	WARNINGS, Severe Weather (Indian Ocean);		Special weather statements;
	WARNINGS, Special Marine.		WARNINGS, (military) gale, small craft, gust.
WN	Nuclear bulletins.		
WO	WARNINGS, Severe Weather, High water, Marine shipping;	WX	WARNINGS, miscellaneous (military).
	WARNINGS, Marine, High Winds, high surf, high tide (storm surge), flooding, thunderstorm, tornado;	XN	Automated METAR.
		XT	Forecasts, military planning.
		YS	Worldwide METAR specials.

AA - GEOGRAPHICAL OR REGIONAL IDENTIFIERS

Most MANOP headings do not use specific country codes for products, but rather use regional identifiers. The following are the regional identifiers most frequently used in MANOP headings:

AA	Antarctica	JP	Japan
AC	Arctic Region	KA	Caroline Islands
AE	Southeast Asia	KO	South Korea
AF	Africa	LU	Aleutian Islands
AK	Alaska	MC	Central Mediterranean
AM	Central Africa	ME	Eastern Mediterranean
AO	West Africa	MM	Mediterranean
AP	Southern Africa	MV	Maldives
AR	Arabian Sea	MW	Western Mediterranean
AS	Asia	MX	Mexico
AU	Australia	MY	Marianas Islands
BN	Bahrain	NA	North America
BQ	Baltic Sea	NT	North Atlantic
CA	Caribbean	OC	Oceania
CI	China	OH	Sea of Okhotsk
CN	Canada	PA	Pacific
EA	East Africa	PE	Persian Gulf
EC	East China Sea	PH	Philippines
EE	Eastern Europe	PK	Pakistan
EM	Middle Europe	PN	North Pacific
EN	Northern Europe	PQ	Western North Pacific
EU	Europe	PS	South Pacific
EW	Western Europe	PW	Western Pacific
FE	Far East	PZ	Eastern Pacific
GA	Gulf of Alaska	RS	Russia (Europe)
GL	Greenland	SA	South America
GM	Guam	SD	Saudi Arabia
GX	Gulf of Mexico	SE	Southern Oceanic Area
HW	Hawaiian Islands	SJ	Sea of Japan
IO	Indian Ocean	SS	South China Sea

ST	South Atlantic	XS	Southern Hemisphere
UK	United Kingdom	XT	Tropical Belt
US	United States	XW	Western Hemisphere (between 0 and 180 degrees West)
XE	Eastern Hemisphere (between 0 and 180 degrees East)	XX	For use when other designations are not appropriate.
XN	Northern Hemisphere		

APPENDIX III

REFERENCES USED TO DEVELOP THE TRAMAN

NOTE: Although the following references were current when this TRAMAN was published, their continued currency cannot be assured. You therefore need to be sure you are studying the latest revision.

Chapter 1

Aeronautical Information Manual, U.S. Department of Transportation/Federal Aviation Administration, Washington, D.C., February 1998.

Allied Communications Publication, *Communications Instructions Radiotelephone Procedure*, ACP-125 (E), Joint Chiefs of Staff, Washington, D.C., August 1987.

Allied Communications Publication, *Communications Instructions Teletypewriter (Teleprinter) Procedures*, ACP 126 (C), Joint Chiefs of Staff, Washington, D.C., May 1989.

Automatic Digital Network (AUTODIN) Operating Procedures, JANAP 128 (J), Joint Chiefs of Staff, Washington, D.C., July 1993.

Configuration Management of Automated Information Systems, NAVMETOCCOMINST 5231.1, March 1996.

Department of the Navy Automatic Data Processing Security Program, OPNAVINST 5239.1 A, Office of the Chief of Naval Operations, Washington, D.C., August 1982.

Department of the Navy Information and Personnel Security Program Regulation, OPNAVINST 5510.1, Office of the Chief of Naval Operations, Washington, D.C., 1988.

DOD Flight Information Publication (Enroute), *IFR - Supplement United States (April 1998 edition)*, National Imagery and Mapping Agency, St. Louis, MO, 1998.

DSN User Services Guide, DISA Circular 310-225-1, Defense Information Systems Agency, Arlington, VA, April 1998.

Meteorology and Oceanography (METOC) Integrated Data Display System (MIDDS) User's Guide (version 2.1), Naval Oceanographic Office, Stennis Space Center, MS, June 1998.

Naval Telecommunications Procedure, *Telecommunications Users Manual*, NTP-3 (J), Naval Computer Telecommunications Command, Washington, D.C., July 1997.

NAVMETOCCOM Policy on Internet Access and Use of Government Information Systems, NAVMETOCCOMINST 5230.3, June 1998.

Networking Essentials, Microsoft Press, Redmond, WA, 1996.

Performance Specification for the Tactical Environmental Support System/Next Century TESS (NC) (NITES version I and II), Draft, Commander, Space and Naval Warfare Systems Command, San Diego, CA, December 1997.

Radioman Training Series, Module 4—Communications Hardware, NAVEDTRA 12848, Naval Education and Training Professional Development and Technology Center, Pensacola, FL., September 1997.

Radioman Training Series, Module 5—Communications Center Operations, NAVEDTRA 12849, Naval Education and Training Professional Development and Technology Center, Pensacola, FL, October 1997.

Secure Telephone Unit Third Generation (STU-III) COMSEC Material Management Manual, CMS 6, Director, Communications Security Material System, Washington, D.C., October 1990.

Steele, Heidi, *How to Use the Internet (third edition)*, New York, NY, 1996.

Supplemental Operator's Manual for Tactical Environmental Support System (TESS (3)), (Next Century (NC) Transition), SPAWAR EE685-HC-SUP-010, Commander, Space and Naval Warfare Systems Center, San Diego, June 1998.

Tactical Environmental Support System (TESS (3)) and Shipboard Meteorological and Oceanographic Observing System (SMOOS) Operator's Manual, Vol. IIA, NAVELEXCEN VJO 14203-0302428A, NISE WEST, Vallejo, CA, 1993.

Tactical Environmental Support System (TESS (3)) and Shipboard Meteorological and Oceanographic Observing System (SMOOS) Operator's Manual, Vol. IIB, NAVELEXCEN VJO 14203-0302428A, NISE WEST, Vallejo, CA, 1993.

Technical Manual Comparator-Converter Group AN/URA-17, AN/URA-17A, AN/URA-17B, Operation and Maintenance Instructions, SPAWAR EE162-JA-OMI-010/E110 URA17,A,B, Commander, Naval Space and Naval Warfare Systems Command, Washington D.C., 1983.

United States Navy Meteorological and Oceanographic Support Manual, NAVMETOCCOMINST 3140.1K, Commander, Naval Meteorology and Oceanography Command, Stennis Space Center, MS, September 1996.

Worldwide Marine Radiofacsimile Broadcast Schedules, (seventh edition), U.S. Department of Commerce/National Weather Service, Washington, D.C., March 1998.

Chapter 2

Advanced Refractive Effects Prediction System (AREPS) User's Manual (version 1.0), Technical Document 3028, Space and Naval Warfare Systems Center, April 1998.

Data Request Product (DRP) User Manual, FLENUMFTOCEN Publication P-3146, September 1997.

Electra-Optical Tactical Decision Aid (EOTDA) User's Manual (version 3.1), PL-TR-94-2174 (I), Hughes STX Corporation, Lexington, MA, June 1994.

FNMOOC Products Manual, FLENUMETOCCEN Publication P-3140, October 1997.

Geophysics Fleet Mission Program Library New Technology (GFMP L NT) User's Manual, Naval Oceanographic Office, Stennis Space Center, MS, July 1998.

Geophysics Fleet Mission Program Library (GF MPL) Summary, Naval Oceanographic Office, Stennis Space Center, MS., February 1997.

Interim Mobile Oceanography Support System (IMOSS) User's Guide (DRAFT), Naval Oceanographic Office, Stennis Space Center, MS, December 1997.

Joint METOC Viewer User Manual, FLENUMETOCEN Publication P-352, November 1997.

Meteorology and Oceanography (METOC) Integrated Data Display System (MIDDS) User's Guide (version 2.1), Naval Oceanographic Office, Stennis Space Center, MS, June 1998.

Navy Oceanographic Data Distribution System (NODDS) Manual, FLENUMETOCEN Publication P-3147, May 1996.

Navy Oceanographic Data Distribution System Products Manual, FLENUMETOCCOMINST 3147.1, February 1993.

Oceanographic and Atmospheric Master Library (OAML) Summary, Naval Oceanographic Office, Stennis Space Center, MS, April 1998.

Optimum Path Aircraft Routing System (OPARS) Manual FLENUMETOCEN Publication P-3710, February 1997.

Performance Specification (PS) for the Tactical Environmental Support System/Next Century TESS (NC) (NITES version I and II), Draft, Commander, Space and Naval Warfare Systems Command, San Diego, CA, December 1997.

Supplemental Operator's Manual for Tactical Environmental Support System (TESS (3)), (Next Century (NC) Transition), SPAWAR EE685-HC-SUP-010, Commander, Space and Naval Warfare Systems Center, San Diego, June 1998.

Tactical Environmental Support System (TESS (3.0)) and Shipboard Meteorological and Oceanographic Observing System (SMOOS) Operator's Manual, Vol. IIA, NAVELEXCEN VJO 14203-0302428A, NISE WEST, Vallejo, CA, 1993.

Tactical Environmental Support System (TESS (3.0)) and Shipboard Meteorological and Oceanographic Observing System (SMOOS) Operator's Manual, Vol. IIB, NAVELEXCEN VJO 14203-0302428A, NISE WEST, Vallejo, CA, 1993.

United States Navy Meteorological and Oceanographic Support Manual, NAVMETOCCOMINST 3140.1K, Commander, Naval Meteorology and Oceanography Command, Stennis Space Center, MS, September 1996.

Chapter 3

Department of the Navy Correspondence Manual, SECNAVINST 5216.5D, Department of the Navy, Washington, D.C., August 1996.

Department of the Navy Directives Issuance System, SECNAVINST 5215.1C, Office of the Chief of Naval Operations, Washington, D.C., April 1970.

Department of the Navy Directives Issuance System Consolidated Subject Index, OPNAVNOTE 5215, Office of the Chief of Naval Operations, Washington, D.C., February 1998.

Department of the Navy File Maintenance Procedures and Standard Subject Identification Codes (SSIC), SECNAVINST 5210.11D, Department of the Navy, Washington, D.C., October 1987.

Navy and Marine Corps Records Disposition Manual, SECNAVINST 5212.5D,
Department of the Navy, Washington, D.C., April 1998.

United States Navy Meteorological and Oceanographic Support Manual,
NAVMETOCCOMINST 3140.1K, Commander, Naval Meteorology and
Oceanography Command, Stennis Space Center, MS, September 1996.

INDEX

A

Address indicator group, 1-22
Administration, general terminology, 3-1 to 3-2
Advanced Refractive Effects Prediction Program, 2-12
AFMEDS, 1-11 to 1-12
 equipment, 1-12
AIG, 1-22
Air Force Meteorological Data System, *see* AFMEDS
AN/SRA-12 antenna patch panel, 1-38
AN/UGC-143A(V) teleprinter, 1-44
AN/UGC-20 teleprinter, 1-42 to 1-43
AN/UGC-25 teleprinter, 1-44
AN/URA-17() comparator-converter, 1-40
AN/WRR-3() receiver, 1-38
Antenna, radio, 1-37 to 1-38
Antenna patch panel, AN/SRA-12, 1-38
AREPS, 2-12
AUTODIN, 1-2 1
 message formats, 1-21 to 1-22
Automated Surface Observing System (ASOS), 1-18 to 1-19
Automated Weather Network *see* AWN, 1-11,1-16
Automatic Digital Network, *see* AUTODIN
Automatic Response to Query (ARQ), 1-12
AWN, 1-11 to 1-13, 1-16
 AFMEDS, 1-12
 ARQ, 1-12
 MANOP headings, 1-12
 Message Format Transmitter (MFT), 1-12

B

Baud, 1-42
Baud rate, 1-42

Broadcast,
 facsimile, 1-35
 fleet multi-channel, 1-33 to 1-34
 HF, 1-37
 SHF, 1-33
Bulletin board systems, 1-9

C

CAD, 1-22
Change transmittals, 3-8 to 3-9
 processing of, 3-8 to 3-9
Charts,
 maintenance of, 3-11
Classification, markings, 1-1
Classification, message, 1-22
Classification, security categories, 1-1
CMW, 1-14
Collective address designator, 1-22
Commercial long-distance telephone, 1-3 to 1-4
Communications protocol programs, 1-6
Communications security, 1-1
Communications, telephone, 1-3 to 1-6
Comparator-converter, AN/URA-17(), 1-40 to 1-42
Computer flight plans, 2-18
Computer networks, 1-7 to 1-13
Contel Meteorological Workstation, 1-14
Converter, CV-483/URA-17, 1-40 to 1-42
CV-483/URA-17, converter, 1-40 to 1-42

D

Data Request Product, *see* DRP
Declassification instructions, message, 1-24
Defense Message System (DMS), 1-20
Defense Switched Network (DSN), 1-4
Digital facsimile (DIFAX), 1-13, 1-16

Directives,
 organization of, 3-2 to 3-4
 maintenance of, 3-7 to 3-8

Distributed Plain Language Address Verification System (DPVS), 1-22

DRP, 2-18 to 2-21
 BALW, 2-21
 BTXT, 2-20
 ENVR, 2-20
 GEM, 2-20
 JJPRO, 2-20 to 2-21
 PNTDT, 2-20
 RIBS, 2-20
 SAR, 2-20
 SNDFO, 2-21
 SPOUT, 2-20

DSN (Defense Switched Network), 1-4
 precedence, 1-4

DTG, message, 1-22

E

E-mail, 1-9 to 1-10

Electra-optics, 2-12 to 2-14

Electronic mail, 1-9 to 1-10

EO systems, 2-13

EOTDA, 2-12 to 2-14

F

Facsimile,
 Alden 9315 series TRT, 1-36 to 1-37
 Alden 9315 series TR4, 1-36
 HF broadcasts, 1-34 to 1-35
 recorders, 1-36
 recorder, telephone, 1-6

Fax, see facsimile

Files,
 maintenance of, 3-2 to 3-4, 3-7
 organization of, 3-2 to 3-4

Fleet multi-channel broadcast (FMCB), 1-33 to 1-34

Forms,
 maintenance of, 3-11

Free format message body, 1-24

Frequency range,
 ultra-high (UHF), 1-25
 very-high (VHF), 1-25

G

Gateguard, 1-20

GCCS-M, 1-30

Geophysics Fleet Mission Program Library (GF MPL), 1-19

GF MPL, 1-19, 2-3
 functions, 1-19, 2-4
 programs, 1-19, 2-4 to 2-5

Global Weather Communications System, 1-10

Global Weather Intercept Program, 1-10, 1-13

GWCS, 1-10

GWIP, 1-10, 1-13

H

High-frequency (HF) broadcasts, 1-34
 Coast Guard broadcasts, 1-35
 Foreign broadcasts, 1-35
 Navy fleet broadcasts, 1-35
 regional broadcasts (HFRB), 1-35

High frequency regional broadcasts (HFRB), 1-34 to 1-35

Homepage, 1-9

Hypertext link, 1-7

Hypertext Markup Language (HTML), 1-18

I

IMOSS,
 communications module, 1-32 to 1-33
 configuration, 1-31
 main module, 1-31 to 1-32
 satellite module, 1-33

IMOSS—Continued

Weather Fax, 1-33

WEATHERTRAC, 1-33

Instructions, 3-1

Integrated Refractive Effects Prediction System, 2-12

Interim Mobile Oceanographic Support System, *see*
IMOSS

Internet, 1-7 to 1-9

Internet service provider, 1-7

IREPS, 2-12

J

JMV, 1-13, 2-16

features, 2-16

products, 2-16

Joint METOC Viewer, *see* JMV

Joint Operations Tactical System (JOTS), 1-34

K

KSD-64A, 1-5

L

Local Area Network (LAN), 1-7

M

Message Format Transmitter (MFT), 1-19

Meteorology and Oceanography Integrated Data
Display System, *see* MIDDS

MIDDS, 1-14 to 1-19

ASOS communications link, 1-18 to 1-19

briefing support, 1-17 to 1-18

bulletin board access, 1-19

functions of, 1-14 to 1-19

GFMPPL application software, 1-19

Internet access, 1-19

receiver modules, 1-16

router modules, 1-15

weather group applications software, 1-16 to
1-17

Military networks,

NIPRNET, 1-8

SIPRNET, 1-9

Model 28 teleprinter, 1-42 to 1-44

Modems, 1-6

N

National Imagery and Mapping Agency (NIMA), 3-11

Naval message, 1-20

addressee, 1-2 1

address indicator group (AIG), 1-22

body, free format, 1-24

body, USMTF GENADMIN, 1-21 to 1-25

classification, 1-2 1

collective address designator (CAD), 1-22

Date/time group (DTG), 1-21

declassification, 1-21

DPVS, 1-22

format, AUTODIN, 1-20

format, GENADMIN, 1-22 to 1-25

format, USMTF, 1-20 to 1-21

formatting software, 1-20

gateguard, 1-20

header, 1-2 1

info addee, 1-21, 1-22

minimize, 1-25

originator, 1-21, 1-22

plain language address (PLA), 1-22

precedence, 1-21, 1-22

readdressal, 1-24 to 1-25

Standard Subject Identification Code (SSIC), 1-22

text separator, 1-21, 1-22

transmission ID, 1-21, 1-22

NAVCOMPARS, 1-45

Navy Integrated Tactical Environmental Subsystem,
see NITES

Navy Oceanographic Data Distribution System, *see*
NODDS

Navy standard teleprinter, 1-49
NIPRNET, 1-9
NITES, 1-30
NODDS, 1-9, 2-14 to 2-16
 processing and display features, 1-9, 2-15
 products, 1-9, 2-15
NOTAM, 1-10
Notices, 3-1

O

OAML,
 databases, 2-1 to 2-3
 models, 2-1 to 2-3
Oceanographic and Atmospheric Master Library, 2-1 to 2-3
OPARS, 2-17 to 2-18
 flight plan processing, 2-18
 MIDDS program, 2-18
 subsystems, 2-17 to 2-18
Optimum Path Aircraft Routing System, *see* OPARS
OTCIXS, 1-34

P

Permanent records, 3-4 to 3-5
Plain language address (PLA), message, 1-22
PMSV radio, 1-25 to 1-26
 communications protocol, 1-26 to 1-28
 prowords, 1-26 to 1-28
Publications,
 maintenance of, 3-10 to 3-11
 types of, 3-9 to 3-10

R

R-1051/URR receiver, 1-38
R-2368/URR receiver, 1-39
Radio,
 PMSV, 1-25 to 1-26
 terms, 1-27

Radio frequencies, 1-25
Radio, PMSV, 1-25 to 1-28
Radio receivers,
 AN/WRR-3(), 1-38
 R-1051/URR, 1-38 to 1-39
 R-2368/URR, 1-38 to 1-40
 switchboard SB-973/SRT, 1-40
RATT (radio teletype), 1-37
Receiver, *see* radio receiver
Records,
 disposal of, 3-6
 maintenance of, 3-6
 organization of, 3-2 to 3-4
 storage of, 3-6
Refractive effects prediction programs, 2-12

S

SB-973/SRT receiver switchboards, 1-40
Search engine, 1-9
Secure telephone unit, 1-5 to 1-6
Security clearance, 1-2
Security manual, 1-1
Server, 1-7
SHF, 1-33
Shipboard antenna, 1-37 to 1-38
Shipboard communications, 1-37 to 1-46
Shipboard radio receivers, 1-38 to 1-40
 RATT broadcast, 1-37
 voice broadcast, 1-37
Shipboard teleprinters, 1-42 to 1-46
SIPRNET, 1-9
SMOOS, 2-6
Special-handling markings, 1-1 to 1-2
Standard Subject Identification Code (SSIC), 3-2
STU-III, *see* secure telephone unit

T

Tactical Environmental Support System (TESS), 2-5 to 2-12

TADIXS, 1-39

Telefax, 1-6

Telecommunications systems, 1-3 to 1-13

Telephone systems, 1-3 to 1-6

- commercial long-distance, 1-3 to 1-4

- communications, 1-3 to 1-6

- defense switched network, 1-4 to 1-5

- equipment, 1-5 to 1-6

- modems, 1-6

- secure, 1-5 to 1-6

- system access, 1-3

Teleprinter terminals,

- AN/UGC-143A, 1-42

- AN/UGC-20, 1-42 to 1-44

- AN/UGC-25, 1-42 to 1-45

- model 28, 1-42 to 1-45

- Navy standard, 1-44

- TT-48/UG, 1-42 to 1-43

- TT-69/UG, 1-42 to 1-44

TESS (3), 1-28 to 1-30

- hardware configuration, 1-29, 2-6 to 2-11

- software programs, 1-29 to 1-40, 2-6 to 2-11

TESS-NC,

- hardware configuration, 1-30

- software programs, 1-30, 2-11

TESS-NC Transition,

- hardware configuration, 1-29

- software programs, 1-29 to 1-30, 2-11 to 2-12

Transmission ID, message, 1-22

TT-48/-UG, 1-42 to 1-43

TT-69/UG, 1-42 to 1-44

U

Ultra-high-frequency (UHF), 1-25

Uniform Resource Locator (URL), 1-9

USMTF GENADMIN message body, 1-22 to 1-25

V

Very-high-frequency (VHF), 1-25

W

Weather communications networks, 1-10 to 1-13

- Global Weather Intercept Program (GWIP), 1-10

- Automated Weather Network (AWN), 1-11 to 1-12

Web browser, 1-9

Website, 1-9, 1-11

- METOC-related, 1-9, 1-11

Wide Area Network (WAN), 1-7

World Wide Web (WWW), 1-7 to 1-8

